



Solid Waste Update

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C&D Recyclers of Kansas, Inc.

A Model Facility for Recycling Construction & Demolition Wastes in Sedgwick County and South Central Kansas

by Dennis Degner, Chief, Solid Waste Permits Section

Over the past year, the Kansas Department of Health and Environment (KDHE) has become very familiar with C&D Recyclers of Kansas, Inc. (CDRK), a fully-owned subsidiary of Ritchie Corporation in Wichita. Though permitted as a C & D landfill, this company has developed an innovative waste management system designed and operated primarily for recycling C&D waste and secondarily for landfilling waste residues that cannot be feasibly recycled. This operation complements and further strengthens overall recycling efforts in Sedgwick County.

CDRK has taken construction and demolition waste (C&D) recycling in an aggressive new direction. The company chose to pursue this opportunity as a result of two local solid waste management decisions. After learning that the City of Wichita was required to close the old Brooks municipal solid waste landfill on October 9, 2001, Sedgwick County adopted a new solid waste plan which elected to transfer the county's waste rather than establish a new MSW landfill in the county which satisfied the Subtitle D standards. Secondly, commercial C&D wastes were banned by Sedgwick County from going through any MSW transfer stations in the county.

The CD RK obtained a permit from KDHE to operate their facility at 4250 W. 37th Street North (just south of K-96 and the West Street exit). The facility is contiguous to the Waste Connections MSW Transfer Station. The location of the CD RK facility, which opened on July 29, 2002, is convenient for waste haulers that need to go to the nearby transfer station for screening and sorting of any mixed waste (C&D and MSW) loads that are rejected by CD RK. With this locational advantage working in combination with economic incentives,

construction and demolition contractor education, and numerous positive business relationships, the model for a successful C&D recycling system was developed. The key components of this model are presented below.

Economic incentives are structured in the following way. The unit cost for tipping/dumping a mixed load of MSW and C&D wastes at the Waste Connections Transfer Station is \$38/ton. At the CD RK facility, the

cost for tipping a load of mixed C&D wastes is \$22/ton; however, the rate may be reduced depending on the type of wastes and whether the wastes are segregated. For example, a load of mixed clean rubble (uncontaminated



dirt, brick, rock) can be dumped for \$15.75/ton since these materials can't be recycled. Fully segregated clean rubble can be dumped for free because those materials can be processed directly into aggregate or asphalt and resold. "This type of processing of materials is truly closed loop recycling," says Phil Brothers, manager of CD RK.

Another key economic factor in CD RK's operations depends on contractors providing clean and segregated C&D wastes. If the wastes are clean and segregated well, they can be more easily processed by CD RK or sent directly to a facility involved in composting, mulch production, and the construction of wood pallets. A business relationship with Wood Recycle and Compost Center (Wood) redirects segregated wood and yard waste

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C&D Recyclers *(Continued from Page 1)*

to Wood before it is dumped. The tipping fee at Wood is also \$22/ton. This practice reduces double handling of the waste and reduces the costs for all parties involved in the management of C&D wastes.

Currently, approximately 35 % of all mixed C&D wastes coming to the CDRK facility is being recycled. The primary C&D waste recycling streams consist of wood, metals, and dry wall. In addition, all segregated and uncontaminated concrete, brick, and asphalt – all classified as “clean rubble” under KDHE regulations – is recycled. All C&D wastes classified as unacceptable for a C&D landfill (chemical containers, etc.) by KDHE regulations are removed and sent to the

transfer station. The remaining C&D wastes are disposed in CDRK’s onsite landfill.

In conclusion, this facility represents a new direction in managing the C&D waste stream in Kansas. The company’s focus on economic incentives, strategic marketing and contractor relationships, contractor education, and sound facility management appear to be paying dividends for CDRK and solving C&D waste problems in the Wichita area.

KDHE’s Bureau of Waste Management (BWM) believes that this is a model that should be considered in other major population centers and well-populated counties in our state. In fact, Bill Bider, Director of the BWM stated earlier this year, “This is the first of its kind in the state; I hope it serves off as an example to others regarding what is possible.”

New Definition for “C&D Waste” Passed Into Law

by Bill Bider, Director, Bureau of Waste Management

The passage of House Bill 2703 resulted in a revision to the definition of “construction and demolition (C & D) waste.” The definition was expanded to include the following new materials:

- Treated wood from construction and demolition projects
- Small amounts of municipal solid waste generated by the consumption of food and drinks at construction and demolition sites (e.g., cups, bags, bottles, etc.)
- Furniture
- Appliances from which ozone depleting chlorofluorocarbons have been removed

The complete definition of “construction and demolition waste” can be found in state statutes (K.S.A. 65-3402(u)). This definition and the complete body of state solid waste laws and regulations are available at www.kdhe.state.ks.us/waste/.

WORKS! 2003

by Jim Rudeen, Chief, Waste Reduction, Planning & Outreach Section

Mark your calendars! In 2003, two traditional Kansas conferences on solid waste management (Recycling and Composting WORKS! and Household Hazardous Waste) will merge into one. The *WORKS! 2003 Conference on Recycling, Composting, and Household Hazardous Waste* will be held March 18 - 20, 2003 on the campus of Southwestern College in Winfield, Kansas. The agenda will be filled with opportunities to learn about recycling, composting, household hazardous waste management and source reduction. The conference will feature a keynote address on homeland security and environmental terrorism issues by Kansas National Guard Adjutant General, Gregory Gardner.

Technical training tracks, seminars by recognized experts, roundtable discussions and equipment demonstrations are all designed to provide the latest information on how to make local programs more effective. An evening dessert reception with conference exhibitors featuring a local bluegrass band is also planned. Registration for the conference will begin in January. Watch your mail for the conference brochure, or call Marty Burke or Jim Rudeen at (785) 296-1600 for additional information.



Implementation of New Illegal Dump Clean-Up Program

by Bob Medina, Solid Waste Landfills Unit, Bureau of Waste Management

On July 1, 2000, the Bureau of Waste Management (BWM) was given authority to utilize the waste management fund to clean up illegally dumped solid waste. State funds may only be used if, local governments agree to contribute 25% of the clean-up cost. BWM must also conclude that the dump creates a public nuisance or adversely impacts public health or the environment to use state funds. If KDHE performs any corrective action, the department must assess the situation to determine if cost recovery actions against the person or persons responsible for the illegal dumping should be pursued. Any money recovered from the responsible party will be proportionally shared with the city or county that assisted with the clean-up effort.

KDHE may use the solid waste fund to clean up illegally dumped waste when the responsible party is **“unknown, unable, or unwilling”** to perform the clean-up. If the responsible party is **“unknown”** by KDHE and the landowner demonstrates a lack of knowledge regarding the dumping practice, the site is eligible. This is the “innocent landowner” scenario which was a major reason for the passage of the enabling legislation. KDHE may also make a determination that a known responsible party is **“unable”** to perform the necessary work. To satisfy this criteria, the responsible party (either a private individual or a business) must provide written documentation to KDHE that they are unable to perform the clean up work. Information which could be provided would explain the party’s lack of resources, the inability to obtain a bank loan, and/or other financial obligations. If a party successfully makes this demonstration, KDHE will not pursue cost recovery actions. However, the failure of a known party to provide this information would classify them as **“unwilling”** to perform the clean-up. Unwilling responsible parties also include:

(1) persons or business which fail to initiate clean-up work within specific deadlines and (2) persons who are known, but whose whereabouts are unknown. KDHE will pursue cost recovery actions when an unwilling party exists.

Before initiating state clean-up efforts, KDHE along with the participating local government notifies the responsible party that a state clean-up action will take place unless they enact a clean-up of their own. KDHE and the local government will allow the responsible party to appeal any order and grant them a hearing before any clean-up action takes place. Following the hearing, KDHE and the local government will complete negotiations of the pending clean-up agreement.

Because the enabling statutes state that this program is for “illegal dumps” some solid waste piles cannot be cleaned up using state funds. For example, landowners may “legally” dump the waste they generate on their own property as long as it does not cause a nuisance or environmental impact. Such waste is not eligible for clean-up under this program. A landowner could claim “unknown” sources dumped on their land. In such cases, KDHE would investigate and make a determination as to whether the claim was valid.

During the 2002 fiscal year the BWM contracted with cities and counties to clean-up 40 sites in 17 counties. A estimated \$170,948.37 was spent cleaning up illegal dumps. An estimated \$171,000 was spent cleaning up illegal dumps. An average of \$4,274 was spent per site. The Illegal Dump Program allows a maximum state expenditure of \$10,000 per site. The program budget is \$150,000 per year.

Anyone can nominate a site for clean-up under this program whether the site is on private or public land. Thus far, BWM has worked in less than 20% of the states counties. If, you know where illegal dumping is occurring or are uncertain of a site in your area is an illegal dump, please call Bob Medina with the Bureau of Waste Management at (785) 296-6617.



Tire Piles and West Nile Virus

by Ken Powell, Solid Waste Processing & Special Wastes Unit

Why does KDHE worry about tire piles? As long as nobody bothers them, they aren't a problem, right? Tire piles not only look bad and are a fire hazard, but they also hold water. As the water stagnates, a pile of tires becomes the ideal place for mosquitoes to reproduce. In addition to West Nile Virus (WNV), mosquitoes also carry several other illnesses. A tire pile is also the perfect breeding ground for many other disease vectors.

When the states around Kansas were reporting cases of WNV, it took several more weeks for

Kansas to report its first case. Why the delay in Kansas having any confirmed cases of WNV? One of the reasons might be that KDHE has helped cleanup more than 13 million waste tires all across the state since 1994. This cleanup effort has been funded by the excise tax on new tires implemented in 1990.

The main culprit in spreading WNV is the Culex mosquito. This mosquito prefers stagnant water as a habitat and it only takes seven to ten days for the Culex mosquito to go from egg to adult. In an old pile of tires, the mosquitoes would start laying eggs as soon as the adults come out of hibernation in late March or early April. Even if the pile of tires is new, within a week of a rain, the mosquitoes could be laying eggs in the tires.

Additional information on WNV and suggestions to help control mosquitoes is provided on the three web sites listed below.

KDHE & KSU <http://www.oznet.ksu.edu/westnilevirus/>

Center for Disease Control <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm>

USDA Pest Management Center <http://www.ncpmc.org/NewsAlerts/westnilevirus.html>

The most effective mosquito control is to eliminate breeding areas. KDHE's efforts to clean up the waste tire piles have eliminated many of the breeding areas and therefore is helping to reduce the spread of disease.

Composting - The Confined Animal Feeding Operation Way

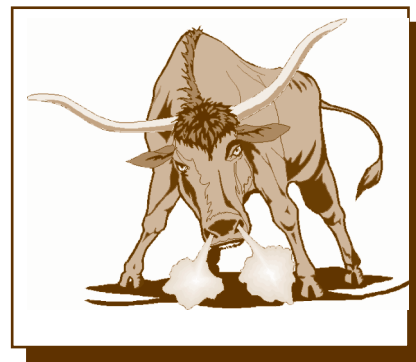
by Ken Powell, Solid Waste Processing & Special Wastes Unit

Interest in composting at confined animal feeding operations (CAFO) continues to increase. Kansas now has CAFOs which are composting not only their manure, but are also composting their dead animals, spoiled feed, and livestock bedding. Many of these facilities were represented among the almost 170 people at the six regional CAFO composting workshops sponsored by KDHE in February 2002. CAFOs have also represented about half of the attendees at the two KSU Composting Operator Schools.

Some of the CAFOs in Western Kansas are producing 35,000 to 50,000 tons of compost per year. By comparison, Kansas has an established yard waste composting industry consisting of about 100 community programs which produces approximately 50,000 tons of compost a year. As more CAFOs begin composting, the challenge will be in the educating potential users so that all of the compost produced can be marketed.

With dead animal rendering becoming less available and more expensive, CAFOs are looking for alternative disposal methods. One cattle feedlot is working to compost all of their dead animals (approximately 1,700 head per year). Many of the swine and poultry facilities are composting their dead animals to help maintain tight bio-security.

Other projects which are of interest include a packing plant which is working with their local landfill to compost the paunch generated when the cattle are slaughtered. Another packing plant is working with a private company to develop a composting facility which could take their paunch plus other wastes generated at the plant. Some of the small meat lockers have expressed an interest in composting the offal generated by their plants as a way of saving rendering costs.



Enforcement Flexibility for Weather-Related Landfill Violations

by John Mitchell, Chief, Waste Compliance, Enforcement & Policy Section

The owner or operator of a municipal solid waste landfill (MSWLF) is required by Kansas Administrative Regulation (K.A.R.) 28-29-108 to design and maintain run-on and runoff control systems and to address litter problems. In the past, when compliance inspections have been performed and the inspection identified significant litter, a violation was recorded. Also, when the inspection identified the presence or potential for surface water drainage to flow onto or away from the active portion of the MSWLF, or when the cover or run-on/runoff control berms showed significant erosion or other damage, these problems were recorded as violations. Such violations have been recorded during inspections following high wind conditions and/or significant precipitation events.

In April, KDHE decided that some regulatory flexibility was needed to recognize the high winds and significant precipitation events that our MSWLFs frequently face.

Litter Control

K.A.R. 28-29-108(r)(7) requires the owner or operator to patrol the facility to check for litter accumulation and take all necessary steps to minimize blowing litter. In instances where an inspection occurs at a MSWLF either during or immediately following windy conditions, (i.e., the next day) and the inspector finds facility personnel actively engaged in patrolling for litter or addressing litter accumulations, the litter will not be considered a violation. An adequate number of workers must be engaged in these activities to address the situation at hand. If the inspection finds the facility is not actively engaged in patrolling for litter or is not adequately addressing its litter accumulation(s), the facility will be considered in violation.

In patrolling for litter problems as well as addressing litter problems the facility shall prioritize these activities in the following way: 1. Off-site areas/accumulations; 2. On-site areas/accumulations in the vicinity of water ways; and 3. Other on-site areas/accumulations away from the active face.

Run-on/Runoff Control Systems

K.A.R. 28-29-108(j) requires the owner or operator of a MSWLF unit to design, construct, and maintain both run-on and runoff control systems. The run-on control system must prevent flow onto the active portion of the MSWLF during a 24-hour, 25-year storm. Run-on that comes in contact with waste (i.e., the active portion of the landfill) is leachate and must be managed accordingly. The runoff control system must collect and control the runoff from the active portion of the MSWLF for the volume resulting from a 24-hour, 25-year storm. Each surface water control structure must be operated until the final cover is placed and erosional stability is provided by the vegetative or other cover.

Each MSWLF must have a written plan approved by KDHE as part of the facility's operating plan describing the facility's program for assessing damage resulting from rainfall events and initiating any necessary repair work. Such damage shall include, but not be limited to erosion damage to final or intermediate cover material, and erosion or other damage caused by storm water to berms or other run-on/runoff control structures. KDHE recognizes that depending on the type and amount of damage, it may take several days to complete necessary corrective action. Specific time frames for addressing damage are given in the policy.

The compliance flexibility described in the policy are applicable to all MSWLFs. KDHE has developed this guidance to assist owners and operators to respond to weather related problems which can occur at these facilities due to high winds and significant rainfall events. The policy explains where regulatory flexibility exists when responding to significant windblown litter and damage resulting from rainfall. Affected parties should refer any questions to the Waste Compliance, Enforcement & Policy Section of the Bureau of Waste Management, KDHE, 1000 SW Jackson, Suite 320, Topeka, Kansas 66612-1366, phone number (785) 296-1608.



Probable Waste Tire Bill in 2003

by Bill Bider, Director, Bureau of Waste Management

The Bureau of Waste Management has been working with the Mid-America Tire Dealers Association (MATDA) and the Kansas Association of Counties (KAC) regarding waste tire legislation for 2003. Under current law, state clean-up authority becomes limited after June 30, 2003 and a greater burden is placed on counties to pay for tire pile abatement. Even though the \$.25 per tire excise tax generates enough revenue to maintain a state clean-up program that combines enforcement with direct expenditures, the law limits state involvement in ways which would slow up clean-up efforts or prevent the state from fully addressing large tire piles. For example, after June 30, 2003, KDHE can only expend state funds to clean up a tire pile if a county agrees to pay 25% of the clean-up costs. In addition, the maximum the state can spend on any site is \$10,000. If the county does not voluntarily participate because they have no available funds, KDHE must order the county to carry out the clean-up work.

KDHE, MADTA, and KAC all agree that it makes most sense to maintain state clean-up authority for illegal tire piles after standard enforcement methods are pursued with responsible parties. The extra step to involve counties adds time which could allow for increased mosquito breeding, a growing concern given the spread of West Nile virus to Kansas. Also, the limited expenditures

per site could result in incomplete clean-up work or requirements for financially strapped counties to carry out unplanned and unbudgeted work.

Although continued state clean-up authority is the primary reason for the bill other improvements and updates to the waste tire law are needed including:

1. The “pre-law” and “post-law” tire pile status, referring to whether the tires were accumulated before or after 1990, should be replaced by a simpler “illegal tire pile” status
2. All owners of tire accumulations (new or old) must be required to control mosquito breeding
3. Existing permit exemptions should be clarified because current law has unintended loopholes
4. Two new exemptions to the tire transporter permit requirements should be established: (1) retailers who also serve as tire distributors would be allowed to transport waste tires back to their central facility from their customers; and (2) owners of illegal tire accumulations would be allowed to transport the tires to a permitted processor or disposal facility if approval is granted by KDHE.

A final issue to be considered is the establishment of a tire recycling grant program for any excise tax revenue which was not needed for administering the regulatory program or the tire pile clean-up program. Several options are under consideration for tire recycling grants.

Status and Summary of Proposed C&D Landfill Regulations

by Christine Mennicke, Chief, Policy, Regs & Data Unit

Last year, 1.2 million tons of construction and demolition (C&D) waste were landfilled in Kansas (see article in this issue on the definition of C&D waste). Almost all of this was disposed in landfills that accept only C&D waste. Since this waste does not present the same risk to the environment as typical residential and commercial waste, these landfills do not need to meet the same design and operational requirements as municipal solid waste landfills. However, in order to be protective of human health and the environment, it is still necessary to ensure that these landfills are properly located, designed, and operated.

Currently, state regulations dealing specifically with C&D landfills are minimal, but there are state and federal regulations governing solid waste disposal areas in general. C&D landfills need to be in compliance with these regulations and with the conditions of their permits. In addition, the Bureau of Waste Management (BWM) has issued policies and Technical Guidance Documents on the proper management of C&D landfills.

BWM has been developing a set of regulations specific to C&D landfills. A task force made up of landfill operators, consultants, environmentalists, and BWM staff has met three times to discuss and develop proposed regulations. Several major changes have been made to draft versions of the regulations in response to comments received from the task force. The regulations as they will be proposed for adoption consist of the following sections: Applicability and Definitions, Location Restrictions, Landfill Design, Landfill Operations, Landfill Closure, and Permits.

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Proposed C&D Landfill Regulations

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There are few truly new requirements in the proposed regulations; most of the requirements have been compiled from existing federal and state regulations and policy. In some cases, the existing regulation was vague, so the requirements have been clarified. The following areas are the most likely to require changes in a C&D landfill's design and/or operation: control of storm water and water that has been in contact with C&D waste; waste screening; and application of cover.

In October BWM sent out a mailing to the owner or operator of each C&D landfill in Kansas. The mailing

included a copy of the draft regulations and a survey asking for information on the financial impact the proposed regulations will have on each landfill. After the results of the survey are evaluated, BWM will start the regulation adoption process, which includes reviews by the Department of Administration, the Attorney General, and the Joint Committee on Administrative Rules & Regulations followed by a two-month public comment period and a public hearing. The proposed regulations will be revised if necessary, adopted by the Secretary of Health and Environment and become effective 15 days after their promulgation in the Kansas Register. The entire process typically takes six to nine months.

New Landfill Developments

Progress Made Toward New Capacity for Kansas' Two Most Populous Counties

by Bill Bider, Director, Bureau of Waste Management

In recent months, two private companies have overcome initial obstacles to expand Kansas' landfill capacity. Waste Connections of Kansas, Inc. has successfully completed several steps related to planning and zoning to establish a new Subtitle D landfill in rural Harper County for Wichita's municipal solid waste (MSW). Deffenbaugh, Inc. has obtained the necessary zoning approvals from the City of Shawnee to expand their existing landfill in north-central Johnson County.

Presently, Waste Connections transfers most of Wichita's solid waste to a company-owned landfill in Oklahoma. For several years, the company has been looking for a place in Kansas to establish a new MSW landfill and thereby save time and money as well as reduce the environmental impacts of the long transfer distance. When Sedgwick County decided they did not want a new MSW landfill the search began for an appropriate site in nearby counties. Unsuccessful efforts in Greenwood, Elk, and Marion Counties led Waste Connections to Harper County.

The first big hurdle in Harper County was the need to obtain local zoning approval. The Harper County/City Joint Planning Commission initially rejected the proposal to locate a large regional landfill on property which borders on the Kingman County line; however, the Harper County Board of County Commissioners later voted to override the Planning Commission recommendations. The county commissioners' decision came after months of negotiating a host agreement with Waste Connections. The host agreement provides financial benefits as well as added environmental safeguards for the county.

The second big hurdle also existed locally. Harper County is part of the Gyp Hills Solid Waste Management Authority which had a solid waste plan prohibiting a regional landfill in Harper County. Harper County was able to influence the authority to revise the regional plan to allow for the proposed landfill. With this change, the county commission could make the certification required by state law that the Waste Connections landfill application was properly zoned and consistent with the county's solid waste plan.

KDHE received a permit application from Waste Connections in August and the application review is in progress. It is anticipated that the review will take several months and culminate in a public information meeting and hearing. Following that process a final decision will be made as to whether to issue the permit.

The Deffenbaugh landfill expansion in Johnson County is earlier in the permitting process. Although local zoning has been completed, existing permitted capacity will be adequate for at least 5 years. The proposed expansion will add about 180 acres to the west and provide disposal capacity through 2027. Now that the zoning requirement has been addressed, the company will move forward to prepare engineering plans and receive approval from Johnson County that the expansion is consistent with the county solid waste plan.

Each of these landfill developments are opposed by various citizen groups and environmental interest groups. KDHE will ensure that all concerns raised by the public are thoroughly considered before moving forward with the issuance of new or modified permits.

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Calendar Items

Dec 3 - Dec 12, 2002	Kansas Clean Sweep - Agricultural Waste Pesticide Collection Program
Jan 13 - Mar 18, 2003	8-Hour Refresher and 24-Hour HHW Specific HAZWOPER Training
Mar 18 - Mar 20, 2003	<i>WORKS!</i> 2003 Kansas Conference on Solid Waste Management - Southwest College Campus, Winfield, Kansas

Solid Waste Update



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